

Claim 16, line 1, change "15" to --29--.

Claim 17, line 1, change "15" to --29--.

Claim 18, line 1, change "15" to --29, --.

Claim 19, line 1, change "15" to --29,--.

Claim 20, line 1, change "15" to --29,--.

Add new claims 29-58 that follow:

(29. A method of treating process water and produce submerged in said process water, said process water and said produce including at least one contaminant from the group consisting of debris, soil, fungus and/or organic chemicals, said method comprising:

providing a tank;

5 introducing said process water into said tank;

introducing said produce into said tank and into said process water in said tank;

generating a chlorine dioxide solution on site;

a admixing said chlorine dioxide solution into said process water, so that said chlorine dioxide solution will treat contaminants on said produce and in said process water;

, 10 during treatment, removing process water from said tank and directing it through a control loop and then back to said tank;

monitoring the oxidation reduction potential of said process water by testing the process water that is in said control loop; and

when said oxidation reduction potential of said process water is below a predetermined level, generating additional chlorine dioxide solution and admixing it with said process water and continuing this procedure until substantially all of said contaminants in said process water and on said produce have been treated.

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30. The method of claim 29, comprising admixing the additional chlorine dioxide solution into the process water as it flows through the control loop.

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31. The method of claim 29, further comprising removing the treated produce from the tank onto a conveyor and using the conveyor to move such produce away from the tank, and during movement spraying a second chlorine dioxide solution onto the produce.

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32. The method of claim 29, comprising removing the treated produce from the tank onto a conveyor and using the conveyor for moving the produce away from the tank, and providing the conveyor with rotating brushes, and rotating said brushes while they are in contact with the produce, so that the brushes will brush the produce and mechanically remove debris and residue from the produce.

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33. The method of claim 32, comprising spraying additional chlorine dioxide solution on the produce while the produce is on the conveyor and being moved by the conveyor away from the tank.

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34. The method of claim 29, comprising providing a chlorine dioxide generator, and storage containers of components that when mixed react and produce a chlorine dioxide solution, and a pump for each such component, located between the storage container for the component and the chlorine dioxide generator, and a controller for the pumps, and an oxidation reduction potential probe in the process water passing through the control loop; and using such probe to measure the oxidation reduction potential of the process water, and using the controller to turn on the pumps and pump the components from their containers to the chlorine dioxide generator in response to the

oxidation reduction potential of the process water being too low, so that the components will be pumped to the chlorine dioxide generator and additional chlorine dioxide solution will be generated;
10 and delivering said additional chlorine dioxide solution from the generator to the process water.

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~~35~~ The method of claim ¹²~~34~~, further comprising removing the treated produce from the tank onto a conveyor and using the conveyor to move such produce away from the tank, and during movement spraying the second chlorine dioxide solution onto the produce.

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~~36~~ The method of claim ¹²~~34~~, comprising moving the treated produce from the tank onto a conveyor and using the conveyor for moving the produce away from the tank, and providing the conveyor with rotating brushes, and rotating said brushes while they are in contact with the produce, so that the brushes will brush the produce and mechanically remove debris and residue from the
5 produce.

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~~37~~ The method of claim ¹⁴~~36~~, comprising spraying additional chlorine dioxide solution on the produce while the produce is on the conveyor and being moved by the conveyor away from the tank.

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~~38~~ The method of claim ¹~~29~~, wherein the produce is apples.

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~~39~~ The method claim ¹⁶~~38~~, further comprising removing the treated apples from the tank onto a conveyor and using the conveyor to move such apples away from the tank, and during movement spraying a second chlorine dioxide solution onto the apples.

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~~40~~ The method of claim ~~38~~, comprising removing the treated apples from the tank onto a conveyor and using the conveyor for moving the apples away from the tank, and providing the conveyor with rotating brushes, and rotating said brushes while they are in contact with the apples, so that the brushes will brush the apples and mechanically remove debris and residue from the apples.

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~~41~~ The method of claim ~~40~~, comprising spraying additional chlorine dioxide solution on the apples while the apples are on the conveyor and being moved by the conveyor away from the tank.

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a1 ~~42~~ A method of treating process water and produce submerged in said process water, said process water and said produce including at least one contaminant from the group consisting of debris, soil, fungus and/or organic chemicals, said method comprising;

providing a tank;

5 introducing said process water into said tank;

introducing said produce into said tank and into said process water in said tank;

providing on site a chlorine dioxide generator and storage containers of components that when mixed react and produce a chlorine dioxide solution, and a pump for each component, located between the storage container for the component and the chlorine dioxide generator, and a controller
10 for the pumps, and an oxide reduction potential probe in the process water;

using the chlorine dioxide generator to generate on site a chlorine dioxide solution and deliver it into the process water;

using the oxidation reduction potential probe to measure the oxidation reduction potential of the process water; and

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15 using the controller to turn on the pumps and pump the components from their containers to the chlorine dioxide generator in response to the oxidation reduction potential of the process water being too low, so that the components will be pumped to the chlorine dioxide generator and additional chlorine dioxide solution will be generated; and

delivering the additional chlorine dioxide solution from the generator to the process water.

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~~43~~ The method of claim ²⁰~~42~~, further comprising removing the treated produce from the tank onto a conveyor and using the conveyor to move such produce away from the tank, and during movement spraying a second chlorine dioxide solution onto the produce.

a1 ²²
~~44~~ The method of claim ²⁰~~42~~, comprising removing the treated produce from the tank onto a conveyor and using the conveyor for moving the produce away from the tank, and providing the conveyor with rotating brushes, and rotating said brushes while they are in contact with the produce, so that the brushes will brush the produce and mechanically remove debris and residue from the
5 produce.

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~~45~~ The method of claim ²⁰~~42~~, comprising spraying additional chlorine dioxide solution on the produce while the produce is on the conveyor and being moved by the conveyor away from the tank.

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~~46~~ The method of claim ²⁰~~42~~, wherein the produce is apples.

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~~47~~ The method of claim ²⁴~~46~~, further comprising removing the treated apples from the tank onto a conveyor and using the conveyor to move such apples away from the tank, and during movement spraying a second chlorine dioxide solution onto the apple.

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~~48~~ The method of claim ²⁴~~46~~, comprising removing the treated apples from the tank onto a conveyor and using the conveyor for moving the apples away from the tank, and providing the conveyor with rotating brushes, and rotating said brushes while they are in contact with the apples, so that the brushes will brush the apples and mechanically remove debris and residue from the
5 apples.

a1 ²⁷
~~49~~ The method of claim ²⁶~~48~~, comprising spraying additional chlorine dioxide solution on the apples while the apples are on the conveyor and being moved by the conveyor away from the tank.

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~~50~~ The method of claim ²⁴~~46~~, comprising delivering the apples to the tank by placing the apples in containers and submerging the containers in the tank, so that the apples will float up out of the containers, and removing the containers from the tank when they are empty of apples.

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~~51~~ The method of claim ²⁷~~49~~, further comprising removing the treated apples from the tank onto a conveyor and using the conveyor to move such apples away from the tank.

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~~52~~ The method of claim ²⁸~~51~~, further comprising spraying a second chlorine dioxide solution onto the apples as the apples are being moved away from the tank by the conveyor.

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The method of claim 51, comprising providing the conveyor with rotating brushes and rotating said brushes while they are in contact with the apples, so that the brushes will brush the apples and mechanically remove debris and residue from the apples.

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The method of claim 53, comprising spraying additional chlorine dioxide solution on the apples while the apples are on the conveyor and being moved by the conveyor away from the tank.

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A method for treating fresh produce to remove debris from the produce and inhibit the growth of fungus, comprising:

submerging produce in a bath of process water;

generating on site a chlorine dioxide solution and admixing it to in said process water so as

5 to clean debris from the surface of the produce and inhibit the growth of fungus on the produce; and

removing the treated produce from the bath onto a conveyor and using the conveyor to move such produce away from the bath.

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The method of claim 55, further comprising during use of the conveyor to move the produce away from the bath, spraying a second chlorine dioxide solution onto the produce.

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The method of claim 55, comprising providing the conveyor with rotating brushes and rotating said brushes while they are in contact with the produce, so that the brushes will brush the produce and mechanically remove debris and residue from the produce.